NCI Center for Bioinformatics
Informatics Seminar Series
—
Emerging Tools for Building Integrated Scientific Data Resources

9:00 until 12:00 Noon
June 11, 2001
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Executive Plaza North, Conference Room H

Joseph Futrelle
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Mr. Joseph Futrelle will discuss ongoing Digital Library community efforts such as the Open Archives Initiative and NCSA's Emerge project that are using XML and related technologies to build components for managing heterogeneous scientific data collections, allowing for transparent retrieval and access across scientific domains. He will describe how digital librarians are using XML technologies, and discuss some scientific data management scenarios and how digital library technology can enable them.

Mr. Futrelle will discuss his own work using tools and standards that promise to ease the development of interoperable scientific data resources by offering a new, agile alternative to specialized, heavyweight stovepipe systems. Mr. Futrelle believes XML and related technologies are leading this movement by providing portable, general-purpose, platform-neutral formats and API's for exchanging data. He will discuss XSL Transformations and XML-Schema mechanisms for describing and translating XML formats, minimizing the programming effort required to bridge tools and data. Also, he will discuss RDF, which provides a rich, distributed means of building semantic webs of descriptive metadata, allowing for inference and other sophisticated knowledge management strategies. Finally, he will describe SOAP, which enables a simple, portable means for performing remote procedure calls, and XML Query, which makes it possible to perform complex, SQL-like queries on XML documents.